Criticism of Schaffner

S. Review of Salmon Isis, 59, 447-8. (objects to Truth predicate, no explicit & better content in Popper's theory)

1.) $p(e/b)$ is probability of e on theories other than T

2.) In footnote expands $p(e/b)$ in terms of alternative competing theories.

3.) theory supporting factor has low value of $p(e/b)$ high value of $p(e/T \& b)$

now $p(e/T \& b) = 1$

$$p(e/b) = x + \varepsilon(1-x) = x(1-\varepsilon) + \varepsilon.$$

~~theory-supporting~~ novel fact has a low of ε

this does not mean necessarily $p(e/b)$ is small as x may be large

$\cancel{x \ll \varepsilon}$ $x \ll 1$ $x+\varepsilon(1-x)$ $x \ll 1$

this is ad hoc 2.

4.) Schaffner now switches to ad hoc$_3$. and says H' is ad hoc if $p(H'/b)$ is small and $\ll p(e/b)$

i.e. $x \ll x + \varepsilon(1-x)$ or $\varepsilon(1-x) \gg 0$

we have $r = \dfrac{1}{x + \varepsilon(1-x)}$. For $x \ll \varepsilon \ll 1$ $r \to 1/\varepsilon$ so r is large

& theory is not ad hoc in sense $r = 1$

Indeed S. take

$$\frac{P(T'/e\,\&\,h)}{P(T'/h)} = \frac{P(e/T'\,\&\,h)}{P(e/h)} = \frac{1}{P(e/h)}$$

$\gg 1$ if $P(e/h)$ is small.

So e may confirm T' unless $\varepsilon = 1$.

5.) Footnote 3 says condition for ad hoc is

$$P(e/h) \gg P(H'/h) \gg P(H'/h)\,P(\theta/h) = P(T'/h)$$

or $x(1-\varepsilon) + \varepsilon \gg x$

or $\varepsilon(1-x) \gg 0$. This condition is not satisfied by $x \ll 1$ unless $\varepsilon \gg 0$

Correct condition is $\Omega = 1$

or $x + \varepsilon(1-x) = 1$

or $(1-x)(1-\varepsilon) = 0$ i.e. $\underline{\varepsilon = 1}$

6.) S. states If $p(H'/b)$ is small.

e cannot confirm T'.

This is false if $\varepsilon \ll 1$.

7.) e is excluded from b — not denied but this is not reason for theory to be collar.

8.) Effect of new e' on T was included e in a new background b'.

$p(H'/b') > p(H'/b)$ since $p(e/b)$ is small. (only true if ε is small)

$= p(H'/b \,\&\, e)$

9.) consider ratio $\dfrac{p(e'/b', T')}{p(e'/T_i, b')}$ always $= 1$

since if theory is true prediction is true.

Far as ratio $e \to e_T$ then ratio may be large.

if T' explains e' in a ratio does advantage of these fact.